REMARKS

Claims 1-5 are now pending in the application. Claims 1, 2, and 4 are currently amended. No new matter has been added as support for the amendments may be found throughout the specification, claims, and drawings as originally filed. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

REJECTION UNDER 35 U.S.C. § 102 AND § 103

Claims 1 stands rejected under 35 U.S.C. § 102(b) as being anticipated by Cisco (http://www.cisco.com/univercd/cc/td/doc/product/software/ios112/intercpt.htm), copyright 1998, Cisco systems.

Claims 2-5 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Cisco (http://www.cisco.com/uinvercd/cc/td/doc/product/software/ios112/intercpt.htm). These rejections are respectfully traversed.

Applicant respectfully submits that Cisco undoubtedly only puts forward a generic solution for avoiding TCP SYN flood attacks and fails to teach or suggest specific technical features, e.g., zero window size and non-zero window size, to achieve the solution.

Since the technical features of zero window size and non-zero window size in claim 1 are not taught or suggested in the cited art, Applicant respectfully submits that the cited art fails to anticipate, teach, or suggest combining the zero window size and non-zero window size with the scheme of avoiding TCP SYN flood attacks in claim 1 of

the present invention, and Applicant believes that claim 1 of the present invention is not obvious to one skilled in the related art. As is known by one skilled in the art, the zero window size and non-zero window size are generally used in the following scenario. When a client continuously sends data packets to a server which does not possess sufficient memory to process the received data packets from the client. The server will send a packet with zero window size to the client to inform the client not to forward data packets to the server for a time period. When the server has sufficient memory to process data packets again, the server will send another data packet with non-zero window size to the client to inform the client to start transmission to the server again.

Applicant respectfully traverses the finding in the outstanding Office Action with reference to claim 2. The examiner asserts that such use of zero window size is well known in the art for the motivation of minimizing the traffic between unauthorized client and the firewall. In claim 1, zero window size and non-zero window size is used for avoiding the firewall located between client and server becomes a bottle-neck in the communication. For example, when the TCP connection between client and server has not yet been established and the speed at which the client sends data packets to the server is too fast. If no measure is adopted to inform the client to stop sending data packets, substantial amounts of memory will be consumed, and the firewall located between client and server will become a bottle-neck.

In view of above, claim 1 is directed to utilizing the zero window size and non-zero window size to avoid TCP SYN flood attacks. The firewall uses a data packet with zero window size to inform a client to not send data packets before receiving a TCP

SYN acknowledgement package from the client, and uses a data packet with non-zero window size to inform a client to send data packets after receiving a TCP SYN response package from the server. The prior art fails to anticipate, teach or suggest this element.

Applicant further respectfully traverses the Examiner's assertion regarding flood attacks. If the window size is anything other than zero, the flood would work and the service will be denied. In accordance with the generic solution put forward by Cisco, which fails to mention use of zero window size and non-zero window size, the following two methods can be used to avoid the TCP SYN flood attacks instead of using the zero window size.

Situation 1: When the TCP connection between client and server has not been established yet and speed at which the client sends packets to the server is too fast, the firewall located between the client and server may buffer the received data packets from the clients, which will consume the memory of the firewall.

Situation 2: When the TCP connection between client and server has not been established yet and speed at which the client sends packets to the server is too fast, the firewall located between the client and server may discard the received packets which the firewall cannot process. Thus, only after a predetermined time will the client re-transfer the packets which have been discarded by the firewall. This will adversely impact the speed acceptance by the users.

The claimed zero window size and non-zero window size addresses these issues. At the same time, after the TCP connection between client and server has been established, the firewall located between the client and server may instantly send a

packet with non-zero window size to inform the client to start sending packets, which may enhance data transmission, improve users' experience and lower memory consumption of the firewall.

In view of the foregoing, Applicant respectfully submits that Cisco does not teach nor suggest the claim 1. Likewise, because claims 2-5 depend from claim 1, Applicant respectfully submits that claims 1-5 defines over the art cited by the Examiner. Thus, Applicant respectfully requests withdrawal of the rejections under 35 U.S.C. §102 and §103.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action and the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 08-0750, under Order No. 9896-000001/US from which the undersigned is authorized to draw.

Dated: September 25, 2007

Respectfully submitted,

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